

**WHAT IS CLAIMED IS:**

1. A method for fabricating a porous silica sphere comprising:  
heat-treating a silica gel by increasing its temperature at a speed of less  
than 90 °C per minute up to 1050 or 1200 °C; and  
5 maintaining the temperature for a predetermined time.
2. The method of claim 1, wherein the silica gel has pores with a size  
of about 20 to 70 angstroms, and a pore volume of around 0.3 to 1.1 ml/g.
3. The method of claim 1, wherein the heat-treatment is performed at  
an average temperature elevating speed ranging from 5 °C to 90 °C per minute.
- 10 4. The method of claim 1, wherein the heat-treatment is performed at  
an average temperature elevating speed ranging from 10 °C to 70 °C per minute.
5. The method of claim 1, wherein heat treatment is performed in a  
rotary tube furnace.
6. A method for fabricating a porous silica sphere comprising  
15 a heat treatment process, wherein silica gel is subjected to a first heat-  
treatment at 400 to 900 °C, and is subjected to a second heat-treatment at 1050 to  
1200 °C.
7. The method of claim 6, wherein the first heat treatment is  
performed for 20 to 60 minutes, and the second heat treatment is performed for 20  
20 to 60 minutes.
8. The method of claim 6, wherein the heat treatment is performed  
using at least two rotary tube furnaces.
9. The method of claim 6, which comprises  
putting the silica gel into a first tube furnace;  
25 subjecting it to a first heat-treatment by increasing the temperature at an  
average speed of 35 to 70 °C per minute up to 700 °C, and then maintaining it for 10  
to 20 minutes; and  
subjecting it to a second heat-treatment in the second tube furnace at 1100  
30 to 1150 °C, then maintaining it for 20 to 60 minutes.